

WHAT IS CLAIMED:

- 1 1. A fluid supply system for supplying a first fluid or a  
2 second fluid to a press, the fluid supply system comprising:  
3 a first supply line plumbed to supply the first fluid to the  
4 press;  
5 a first supply valve in said first supply line to control  
6 flow in the first supply line;  
7 a second supply line plumbed to supply the second fluid to  
8 the press;  
9 a second supply valve in said second supply line to control  
10 flow in the second supply line;  
11 a first return line connected to drain fluid from the press;  
12 a conduit in communication with said first and second supply  
13 lines and said first return line; and  
14 a conduit valve in said conduit to control flow through the  
15 conduit, wherein opening the conduit valve enables fluid from the  
16 first or the second supply line through the conduit to by-pass  
17 the press.

1     2.    The fluid supply system of claim 1, further comprising:  
2           a programmable logic controller connected to actuate at  
3     least one of said first supply valve, second supply valve, and  
4     conduit valve to control fluid flow through the fluid supply  
5     system.

1     3.    The fluid supply system of claim 2, further comprising:  
2           a pump in communication with said programmable logic  
3     controller, said pump further being connected to at least one of  
4     said first supply line, said second supply line, said first  
5     return line and said second return line for selectively moving  
6     fluid therethrough.

1     4.    The fluid supply system of claim 3, further comprising:  
2           a first fluid supply line adapted to be connected to a first  
3     fluid supply source;  
4           a first fluid return line adapted to be connected to said  
5     first fluid supply source;  
6           a second fluid supply line adapted to be connected to a  
7     second fluid supply source; and

8 a second fluid return line adapted to be connected to said  
9 second fluid supply source.

1 5. The fluid supply system of claim 2, further comprising a  
2 first sensor means electrically connected to said programmable  
3 logic controller for detecting a fluid level in a first fluid  
4 supply source.

1 6. The fluid supply system of claim 2, further comprising  
2 second sensor means electrically connected to said programmable  
3 logic controller, for detecting a fluid level in said second  
4 fluid supply source.

1 7. The fluid supply system of claim 5, wherein said first  
2 sensor means is a non-contact level sensor.

1 8. The fluid supply system of claim 6, wherein said second  
2 sensor means is a non-contact level sensor.

1 9. The fluid supply system of claim 2, wherein said conduit  
2 valve is electrically connected to said programmable logic  
3 controller.

1 10. The fluid supply system of claim 3, further comprising:  
2 a cleaning fluid supply source for containing cleaning  
3 fluid, said cleaning fluid supply source being connected to said  
4 pump, said cleaning fluid supply source in combination with said  
5 pump being adapted to circulate water in a predetermined manner  
6 through at least two of said first supply line, said second  
7 supply line, said first return line, said second return line,  
8 said supply tube, said drain tube, and said conduit.

1 11. The fluid supply system of claim 9, wherein cleaning fluid  
2 in said cleaning fluid supply source is maintained at a  
3 predetermined elevated temperature by a heating element.

1 12. The fluid supply system of claim 11, wherein said first  
2 supply line is thermally coupled to said cleaning fluid of said  
3 cleaning fluid supply source for selectively heating said first  
4 fluid.

1 13. The fluid supply system of claim 11, wherein said second  
2 supply line is thermally coupled to said cleaning fluid of said

cleaning fluid supply source for selectively heating said second fluid.

14. The fluid supply system of claim 1, wherein said first fluid is aqueous fluid, and said second fluid is a fluid that is reactive to ultra-violet light.

15. The fluid supply system of claim 9, wherein when said conduit valve means is positioned to allow cleaning fluid from a cleaning fluid source to be pumped by a pump through said first supply line, said first valve member, said conduit, said supply tube and said drain tube to clean the fluid supply system.

16. A method of supplying fluid to a press, said method comprising the steps of:

supplying a first fluid to and from said press via a supply tube and a drain tube respectively, said supply tube and said drain tube being connected by a conduit means, said conduit means comprising a first valve in a closed position;

stopping the supply of said first fluid

draining said first fluid from said press via said drain tube;

10 switching from said first fluid to a cleaning fluid;  
11 adjusting said conduit means to an open position which  
12 allows fluid flow therethrough;  
13 supplying said cleaning fluid through said supply tube, said  
14 drain tube and said conduit means;  
15 stopping the supply of said cleaning fluid;  
16 draining said cleaning fluid from said supply tube, said  
17 drain tube and said conduit means;  
18 switching from said cleaning fluid to a second fluid;  
19 placing said first valve in a closed position to prevent  
20 fluid flow therethrough; and  
21 supplying a second fluid to and from said press via said  
22 supply tube and said drain tube.

1 17. The method of claim 16, further comprising the step of  
2 stopping the supply of said second fluid.

1 18. The method of claim 17, further comprising the step of  
2 draining said second fluid from said press via said drain tube.

1 19. The method of claim 18, wherein said method is repeated  
2 after said step of draining said second fluid from said press.

1 20. The method of claim 18, further comprising the steps of:  
2 switching from said second fluid to said cleaning fluid;  
3 adjusting said conduit means to allow fluid flow  
4 therethrough;  
5 supplying said cleaning fluid through said supply tube, said  
6 drain tube and said conduit means;  
7 stopping the supply of said cleaning fluid; and  
8 draining said cleaning fluid.

1 21. The method of claim 16, wherein said conduit means further  
2 comprises a second valve.

1 /22. A fluid supply structure, comprising:  
2 a container bung adapted to fit in a lid portion of a  
3 container;  
4 a fluid supply line for supplying a fluid from said  
5 container to a printing system, attached and extending through  
6 said container bung into said container;  
7 a fluid return line, for returning a fluid to said container  
8 from a printing system, attached to and having a portion  
9 extending through said container bung into said container; and

10 a sensor, positioned on said container bung adapted to  
11 measure a fluid level in said container.

1 23. The fluid supply structure of claim 22, wherein said fluid  
2 return line has a plurality of slots on the portion extended  
3 through said container bung for dissipating gases from said fluid  
4 line to aid the minimization of foaming of said fluid.